

Notice of Allowability

Application No.

09/218,997

Examiner

Leigh McKane

Applicant(s)

FUKAMI, TERUAKI

Art Unit

1744

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Amendment filed 4 February 2004.
2. ☒ The allowed claim(s) is/are 31-36 (New).
3. ☒ The drawings filed on 22 December 1998 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____


Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____


Leigh McKane
Primary Examiner
Art Unit: 1744

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. John Scherlacher on 5 April 2004. The application has been amended as follows:

Cancel claims 21 and 26-30 and add the following new claims therefor.

31. (New) A method for preventing particle adhesion, metal ion contamination, and the degradation of oxide dielectric breakdown voltage of a silicon wafer during a waiting period between a designated processing step and a cleaning step or between processing steps before a cleaning step comprising:

storing the silicon wafer during said waiting period in ultrapure water containing a chelating agent and a surfactant, wherein the concentration of the Cu in the ultrapure water is regulated to 0.01 ppb or less.

32. (New) A method for preventing particle adhesion, metal ion contamination, and the degradation of oxide dielectric breakdown voltage of a silicon wafer according to claim 31, wherein the silicon wafer to be stored has a hydrophobic surface.

Art Unit: 1744

33. (New) A method for preventing particle adhesion, metal ion contamination, and the degradation of oxide dielectric breakdown voltage of a silicon wafer according to claim 31, wherein the designated processing step is a polishing step.

34. (New) A method for preventing particle adhesion, metal ion contamination, and the degradation of oxide dielectric breakdown voltage of a silicon wafer according to claim 32, wherein the designated processing step is a polishing step.

35. (New) A method for preventing particle adhesion, metal ion contamination, and the degradation of oxide dielectric breakdown voltage of a silicon wafer according to claim 31, wherein the chelating agent has a chelate compound production performance not lower than that of NTA.

36. (New) A method for preventing particle adhesion, metal ion contamination, and the degradation of oxide dielectric breakdown voltage of a silicon wafer according to claim 31, wherein the chelating agent is selected from the group consisting of NTA, EDTA, DTPA, CyDTA, salts thereof, and a mixture thereof.

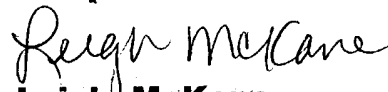
Conclusion

2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leigh McKane whose telephone number is 571-272-1275. The examiner can normally be reached on Monday-Wednesday (7:15 am-4:45 pm).

Art Unit: 1744

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert J. Warden can be reached on 571-272-1275. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Leigh McKane
Primary Examiner
Art Unit 1744

elm
5 April 2004